WETLAND CONCEPTUAL PLAN
ILLINOIS ROUTE 127
UNION AND ALEXANDER COUNTIES

Purpose and Scope of Work. The purpose of this conceptual plan is to mitigate for unavoidable wetland impacts resulting from the widening of Illinois Route 127 in Union and Alexander counties. Slope and ditch cross sections were revised during the design phase to minimize the wetland impacts, however, four wetland locations will be permanently impacted by the project. Of the total 1.739 acres of wetland impacts, 1.709 acres is forested wetland, and the remaining .030 acres is wet shrub wetland. Mitigation will be accomplished on site, and the total mitigation required for this project is 4.325 acres.

Site Location and Natural History. This 20 acre site is located in Alexander County, one mile north of Tamms, Illinois (see Exhibit 1). The parcel is part of the NE1/4 of the NW1/4 of Section 31, T.14S., R.1 W. The region is classified ecologically as the Coastal Plain Division, an unglaciated region where glacial floodwaters formed an ancient Lake Cache in the valleys of the Cache and Ohio rivers. Bald cypress-tupelo swamps developed, which are still present today. Extensive bottomland oak-hickory forests covered the region at presettlement, which is most likely what the presettlement vegetation was on this site. This parcel is not classified as a wetland due to a lack of wetland hydrology and vegetation. (Source: The Natural Divisions of Illinois, Illinois Nature Preserves Commission, 1984.)

Existing Vegetation. The majority of the site is in row crops, with the remainder being abandoned railroad embankments. These embankments are mostly covered in successional disturbance woody species.

Soils. Three soil types occur on this site, all of which are very conducive to wetland development (see Exhibit 2).

1. Bonnie Silt Loam - a poorly drained, light colored soil that formed in medium to strongly acid silt loam sediments more than 40 inches thick; slowly permeable with high available moisture capacity and a high water table during wet periods.
2. Cape-Karnak Silty Clay Loam - light colored, poorly drained or very poorly drained soils that formed in silty clay loam sediments 15 to 40 inches thick; very slowly permeable with a high water table during wet periods.
3. Okaw - poorly drained, light colored soils that formed in silt loam material over silty clay deposited by the ancient Ohio river; very slowly permeable with moderate available moisture capacity; they are wet in spring and droughty in late summer.

Hydrology. Although the site lies within the floodplain of Jackson Creek, it is not adjacent to the creek, and therefore water cannot be diverted onto the site to create wetland hydrology. The most viable source of wetland hydrology is the high water table.

Site Work . (see Exhibit 3)

Grading and Topsoiling. Existing topography includes abandoned railroad embankments along the north and east sides of the site. A slight ridge bisects the parcel, draining surface runoff to ditches along the west and east sides of the property. The grading plan (see Exhibit 4) will remove the railroad embankment on the east side of the property down to natural grade, and will shape a broad wet meadow at the south end of the site. The proposed elevations match those of existing wetlands on adjacent land. The top six inches of topsoil will be stockpiled and respread on the graded areas.

Emergent Ponds (5.3 acres). To create wetland hydrology, the area within the wye formed by the abandoned railroad embankment at the north end of the site will be used to create a shallow pond

approximately 3.3 acres in size. The existing drainage for this area will be plugged, and an outlet at elevation 339.5 will be formed. This pond will flow into a second emergent pond excavated 0.5 feet in depth, and finally into a third shallow emergent pond, also 0.5 feet in depth. The ponds will act to intercept the high water table as well slowing runoff from the site.

Wet Meadow (9.1 acres). The areas around the ponds will be seeded to create a wet meadow. The species will include redtop, canada wildrye, switchgrass, fowl manna grass, rice cut grass, and sedges. The margins of the ponds will be planted with plugs of bulrush , pickerel plant, and arrowhead.

Tree Planting (4.1 acres). The west border of the site will be mass planted with trees (120 trees per acre) into a seeded cover of redtop. Sycamore, green ash, and sweetgum will be mixed with swamp white oak, burr oak, and pin oak. Bald cypress will be planted around the emergent ponds.

Summary of Impacts and Mitigation.

WETLAND IMPACTS	WETLAND MITIGATION
Wet Shrub Wetland - 0.030 acres	Emergent Ponds - 5.3 acres
Forested Wetland - 1.709 acres	Wet Meadow - 9.1 acres
	Wetland Tree Planting - 4.1 acres

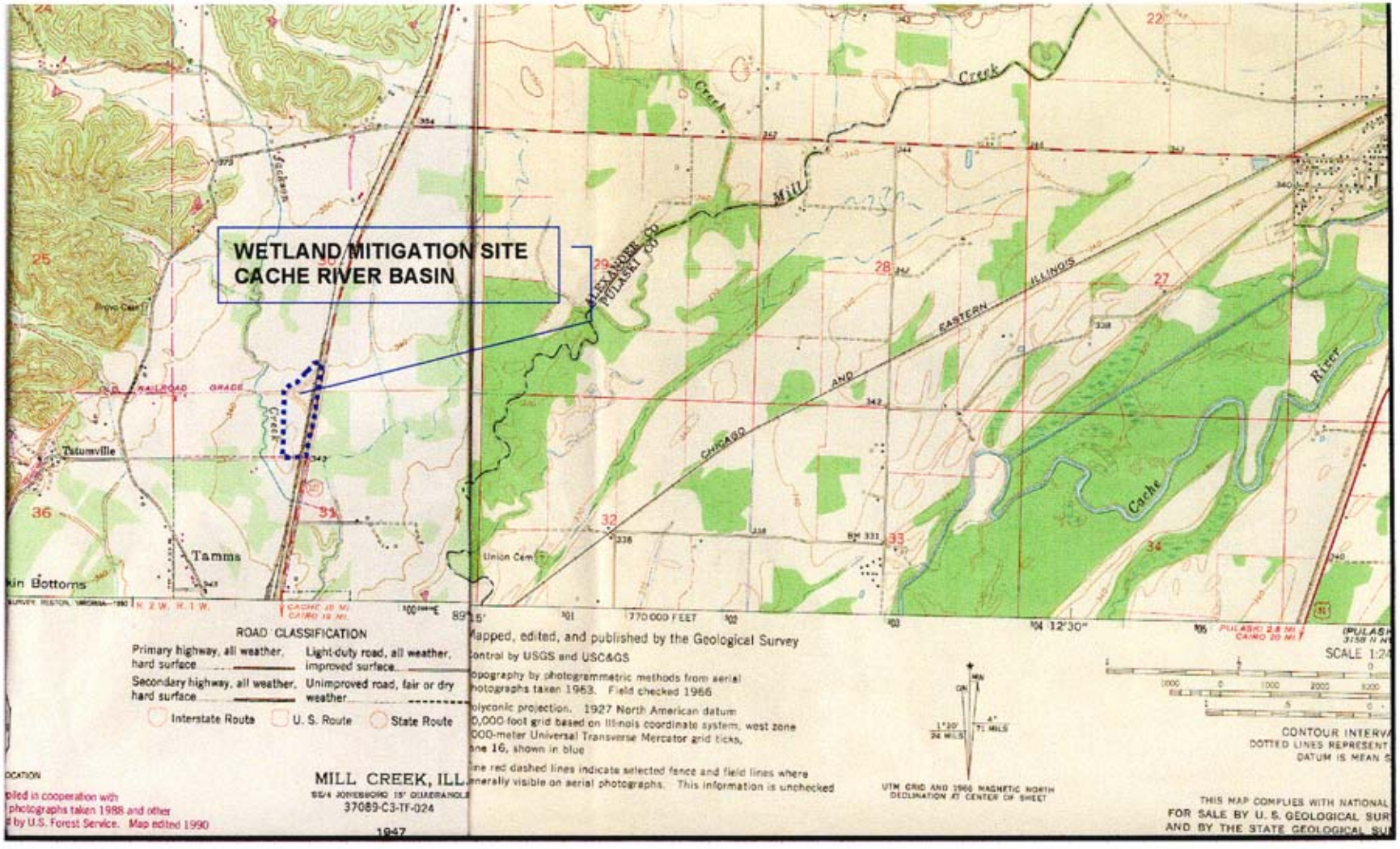

EXHIBIT 1 - LOCATION MAP

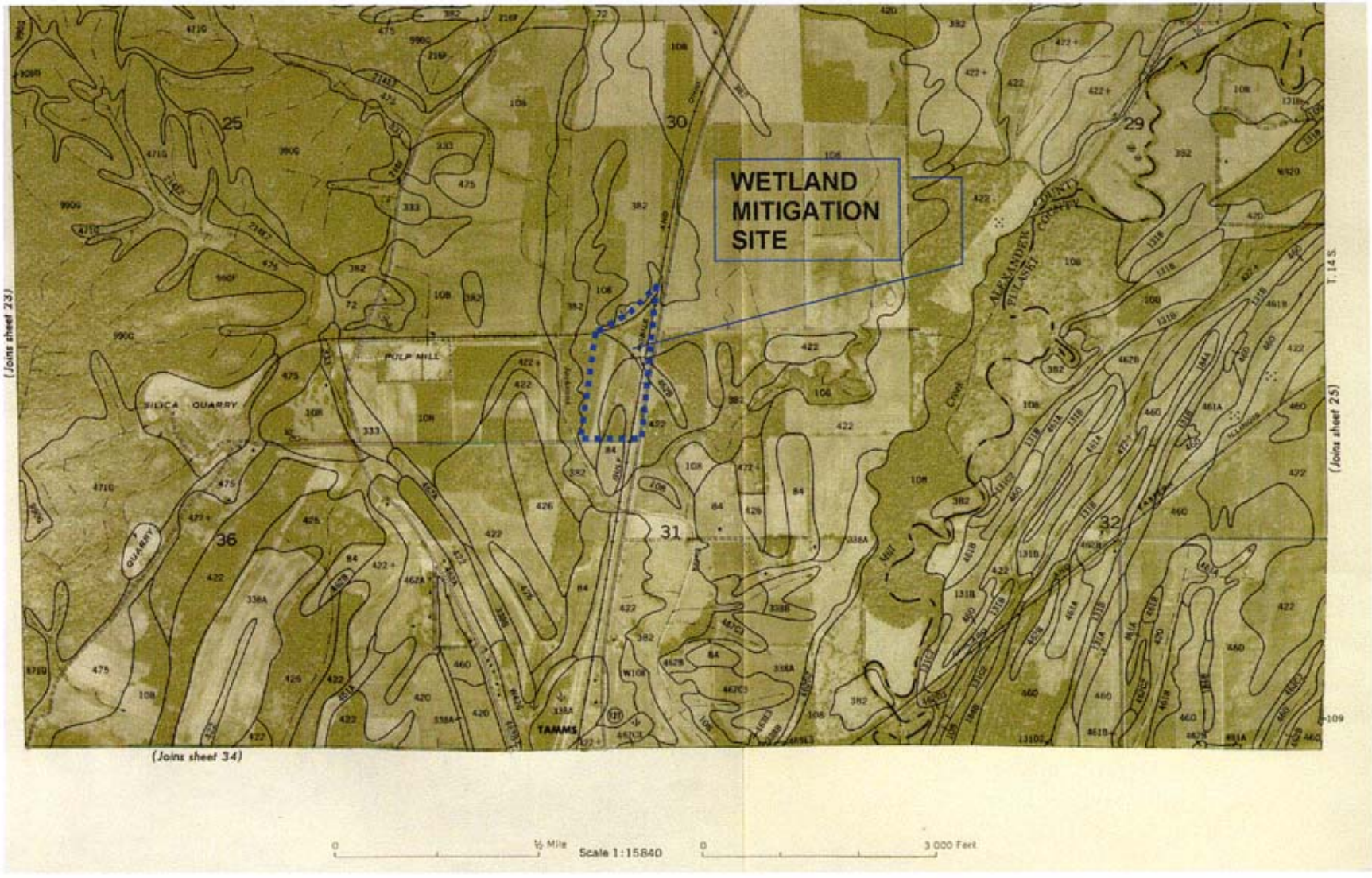

EXHIBIT 2 - SOILS

422 Cape Hydric
84 Okaw Hydric
108 Bonnie Hyric

618 747 9210

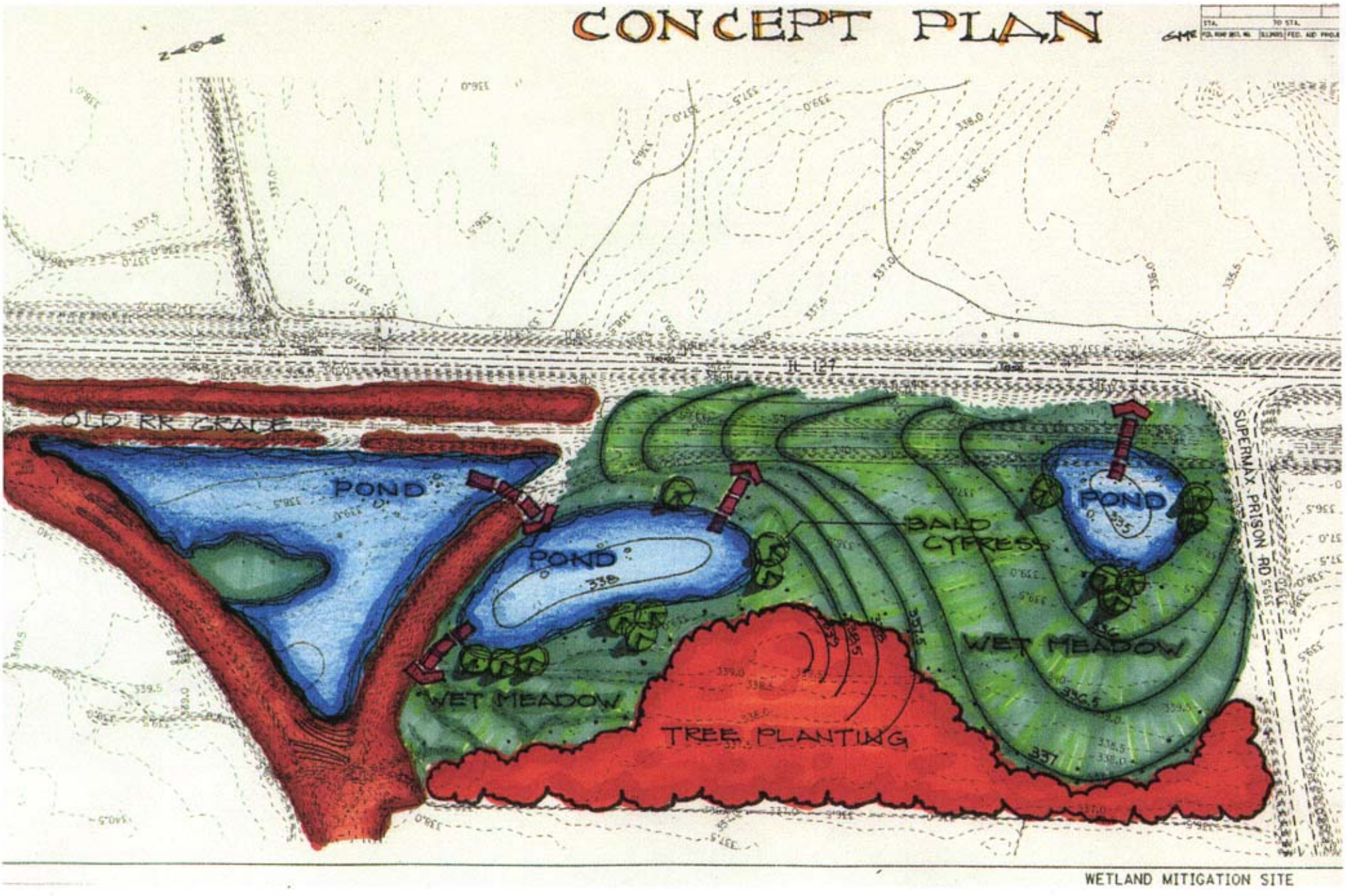

EXHIBIT 3 - CONCEPT PLAN